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Home-Grown CORK

*by Giles B. Cooke and Clifton F. Schmidt, Jr. **

Much has been heard about cork during the past four and a half years. With some 3,000 miles of perilous ocean between the cork growing centers of the Western Mediterranean area and the processing plants of this country, the cork situation has been attentively watched since the outbreak of the present war. Due to the neutrality of Spain and Portugal, a limited supply of cork has come to the United States since September 1939. With General Eisenhower's liberation of Algeria and the Mediterranean the four years of tension were eased somewhat, but the cork situation continues very unsettled and its use is still regulated by the WPB. This doubtful situation regarding the cork supplies has made industry realize the essentiality of this material to the national welfare.

While cork imports were being threatened by the uncertainty of war interesting steps have been taken toward producing at least a part of the required supply in this country. If this program for domestic growing of cork is developed to its fullest extent it means the country will have cork for essential purposes whenever imports of this important material are interrupted by war or any other factor. This project for home-grown cork is making encouraging progress and for the first time in the history of the country substantial plantings have been made annually for four successive years. Continued plantings of the cork oak—as extensive as the domestic acorn crop will permit—will be made this year and in the succeeding years.

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Cork is the bark of the cork oak tree that grows mainly along the shores of the Western Mediterranean, being indigenous to the climate and soil of this region. The cork oak is not a large tree. It may measure anywhere from 35 to 60 feet. It has a perennial foliage, the leaves being quite similar in form to those of the holly tree. The tree usually lives for 150 years although some cork oaks have been known to reach the age of 250 years. For normal peacetime manufacturing requirements approximately 160,000 tons of cork are imported annually.

Available literature on cork maintains emphatically that good cork can be produced only in the Mediterranean area. These beliefs, however, were not accepted by Thomas Jefferson, who worked 40 years to establish the cork oak in this country as a commercial possibility. While representing the United States Government in France during 1787 he sent some cork acorns to William Drayton of "Magnolia" at Charleston, South Carolina, as "new objects of culture likely to succeed in the soil and climate of South Carolina." No trees were obtained from these acorns but Jefferson continued to urge the planting of cork trees until his death almost 40 years later.

Some cork acorns were imported by the Patent Office in 1858 and distributed in the southern states and California. A few trees grew from this planting. Again in 1880 acorns were obtained from Europe and planted in those sections where it appeared the cork oak would grow. This effort produced only a few permanent trees because most of them were



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1—A load of bark harvested from a California cork oak. 2—This old cork tree at Onancock, Virginia, which was planted in 1847, has survived some very cold winters. 3—Note the thick cork on this old tree at Georgetown, Georgia. L. Clifton F. Schmidt, Jr., Research Department, Crown Cork and Seal Co., and R. Dr. Loren Gary, owner of the tree. 4 One of the great cork oaks at Monrovia, Calif.



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lost through storms, neglect and other causes. However, sufficient cork trees survived to provide interest and acorns for the present determined nation-wide program for the home-grown product.

Another who does not believe good cork can be grown only where the cork oak is native is Charles E. McManus, president, Crown Cork and Seal Co. While in California on a business trip some time ago Mr. McManus observed a number of the cork trees which have been growing there from the early plantings. Upon examining the outer bark he recognized the good quality and investigated further. Realizing the possibilities of a domestic supply of cork, Mr. McManus established a project to promote the growing of the trees for commercial production in this country. Under the project, Crown Cork and Seal Co. assumes the costs of collecting cork acorns, growing seedlings and distributing acorns and seedlings among volunteer planters. After planting, the trees become the property of the planter. The cork planting program is a wholly philanthropic endeavor.

A cooperative program was set up in California in which the Western Crown Cork and Seal Corp., the United States Forest Service, State Forestry Department and the Extension Forester at the University of California worked together. With such united effort much progress has been made. More than 100,000 small cork trees have been planted in California and the number distributed yearly is steadily increasing. Cork acorns are collected in November, December and January and shipped to designated nurseries. Then they are planted in



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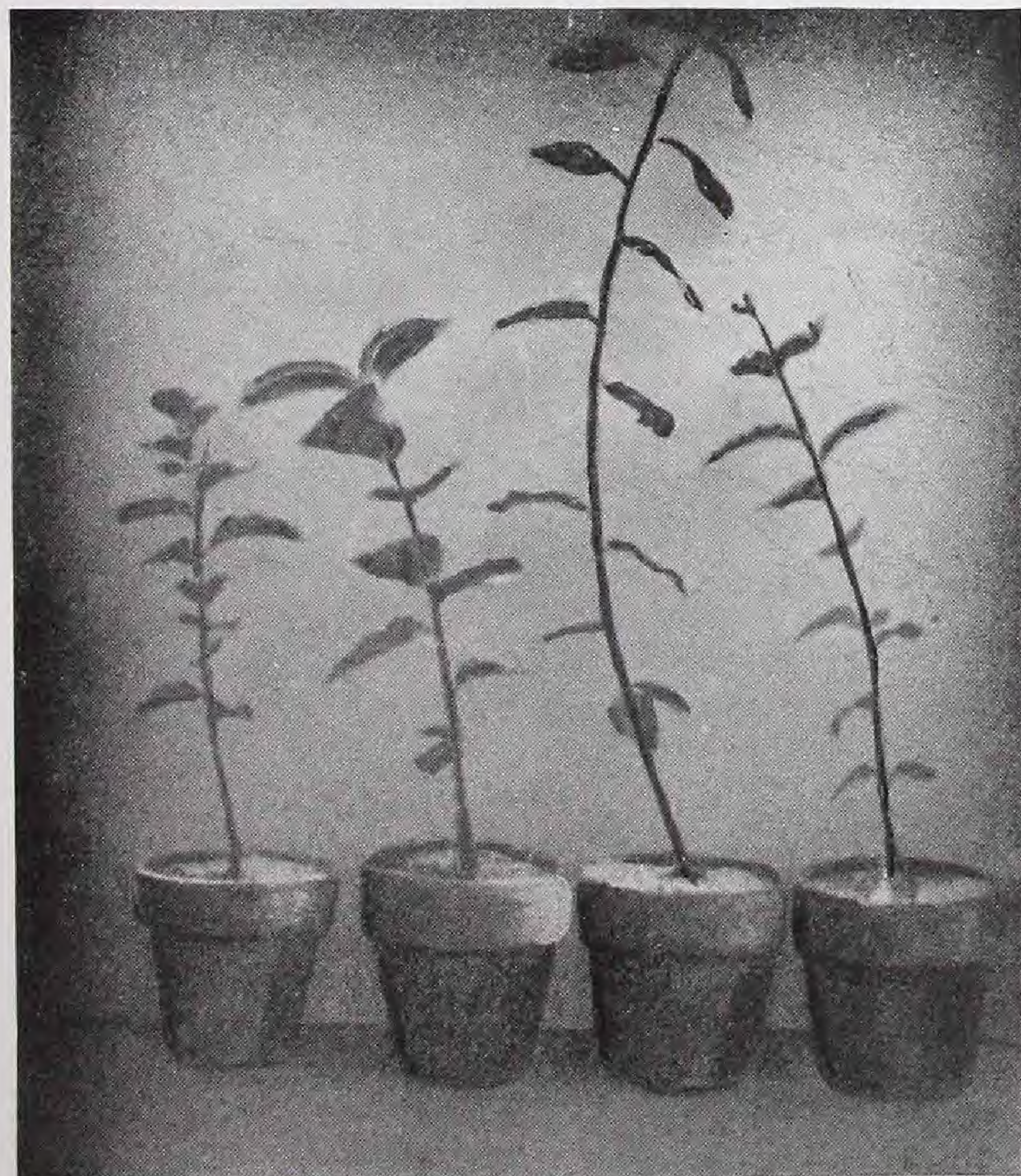


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5—Great cork oaks grow from little acorns like these. More than 4,000 lb. of acorns are being planted in the South this year. 6—This 60-day-old cork seedling was grown in sandy soil. Note the vigorous root development. 7—Cork seedlings ready to be transplanted to permanent locations. 8—Thick bark is readily cut and stripped from the tree. Successive crops, at intervals of several years, grow progressively better in quality.



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tar-paper pots, about three inches across and 12 inches deep. When the cork tree is a year old, the seedling is planted in a permanent location without injury to the roots. More than 4,000 mature cork oaks have been located in California. It is from these trees that most of the acorns for the McManus project are obtained.

The cork has been removed from a number of the mature trees for testing purposes. Every year in selected sections certain trees are stripped and already more than ten tons of high grade cork have been obtained. Most of these trees had not been stripped previously, yet, excellent champagne stoppers have been cut from some of this virgin cork.

The largest grove of trees in the United States is in Bidwell Park at Chico. Here more than 600 cork trees are thriving from a planting made in 1904 by the University of California. At the Napa State Hospital the largest individual cork oak in the country is growing. In every county from Humboldt to San Diego interesting samples of this valuable tree can be seen. Los Angeles county alone has over 1,000 cork oaks.

There are more than 40 cork oaks in Arizona. This state was included in the cork program soon after it was initiated. In and near Phoenix 20 cork trees are growing and others are scattered throughout various parts of the state. One large cork oak is growing on the Craig ranch near Superior at an elevation of more than 4,200 ft. This grand old tree was planted in 1879 and has thrived through many cold winters and hot summers.



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9—A grove of cork oaks at Chico, Calif., after stripping. Trees don't miss their bark, in fact they grow even better after periodic stripping. 10—Weighing-in cork bark at a California grocery. Farmers have a new cash crop which utilizes their waste land, requires but little care. They can be grown in many Southern states.

A large nursery at Superior, where 50,000 cork seedlings are grown annually, has been put into operation recently. Local members of the United States Forest Service and other foresters are cooperating in the distribution and planting of the cork seedlings. Already several thousand small trees are growing about the state and large numbers will be planted in 1944. Like most of California the climate of Arizona is well suited to the cork oak and the tree thrives in many parts of the state.

Inspired by the early progress in California and Arizona, Mr. McManus decided in 1941 to extend the cork growing program to all states where the climate is favorable to cork growth. A survey of the cork possibilities in the South was as interesting as it was surprising. Large healthy cork trees were located in Virginia, North Carolina, South Carolina, Georgia and Alabama. Smaller ones were found in Florida and Louisiana. The impressive part of this search was that numerous cork oaks, not just one, were located. Four cork trees were found in Virginia, five in North Carolina, sixteen in South Carolina, twenty in Georgia, five in Alabama, six in Louisiana and three in Florida. Furthermore, records show that other cork trees have lived and grown to large size in every one of these states. In addition, the search found records of small cork oaks that formerly grew in Maryland and Texas.

In order to include all states where the tree might grow in the planting program a study has been made of the soil, rainfall and temperature conditions of the cork growing sections of Europe. The data obtained have been compared with the soil climate of the United States and a map of the potential cork producing areas in this country prepared. This map serves as a planting guide but acorns and seedlings have been sent to sections outside of the cork map.

During the spring and fall of 1942 a limited number of seedlings were distributed to cooperators from Maryland to Texas. The results of this initial experimental planting were very encouraging and during 1943 more than 3,000 lbs. of cork acorns were distributed throughout the southern states. Many of these were planted directly in permanent locations and others were germinated in the various state forestry nurseries. The cooperation of the foresters in the southern states in growing seedlings and distributing them as well as many acorns to the planters has been splendid. Furthermore, the advice and suggestions given by these men trained in tree culture has been most helpful. Interest in planting cork trees is widespread and during 1944 more than 4,000 pounds of cork acorns will be distributed throughout the South.

It takes time to grow trees, but during the past few years more progress has been made in planting cork in this country than in the previous 150 years. With the cooperation of the Federal and State foresters, many cork trees will be growing throughout the warmer sections of the United States within the next few years.

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